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The Influence of Self-Disclosure on Listeners' Perceptions of Male and Female Children who Stutter

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The Influence of Self-Disclosure on Listeners' Perceptions of Male and Female Children who Stutter

by

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Thesis

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Arts

The University of Texas at Austin

May 2014

Dedication

This thesis is dedicated to my family. Without your constant love, support, and encouragement, this project would not have been possible. Thank you for motivating me to achieve things I once believed to be out of reach. I would also like to dedicate this thesis to my fellow classmates, the graduating class of 2014. Thank you for the memories, the laughs, the tears, and for being a wonderful support system throughout this journey. You are all exceptionally gifted and accomplished, and I am honored to have worked alongside such inspiring individuals.

Acknowledgements

I would like to thank a number of individuals who were involved in the creation of this document. First and foremost, to Courtney Byrd, thank you for inspiring and fostering my ideas for this project. I am deeply grateful for your constant support, guidance, and infinite patience throughout this process. I am most appreciative of the time, effort, and expertise you graciously contributed to making this project all that it has become, but words simply cannot express my gratitude for your genuine kindness and unwavering encouragement every step of the way.

I would also like to thank Elizabeth Hampton for contributing her expertise and for her assistance in perfecting this document.

Additionally, I would like to thank Genessee Klemm for being my "other half" throughout this process. Thank you for your willingness and enthusiasm in tackling this project alongside me. It has been such a pleasure and a blessing to collaborate with you in creating this work. I would also like to thank all of the undergraduate research assistants who dedicated their time and energy to collecting and analyzing participant data. Without your efforts, this project would not have been possible.

Finally, to John, thank you for being a calm and compassionate presence in my life. Your love and support have been fundamental in helping me to accomplish my academic goals.

Abstract

The Influence of Self-Disclosure on Listeners' Perceptions of Male and Female Children who Stutter

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The literature suggests that self-disclosure of stuttering may positively impact the listener's perception of persons who stutter. This phenomenon, although investigated with adults, has not been studied with regards to children who stutter. The purpose of this study was to examine the effects of self-disclosure on listener perceptions of children who stutter. Specifically, this study examined whether listener perceptions of a child speaker who stutters are contingent upon the presence or absence of a self-disclosure statement prior to the speaker initiating his or her monologue, and whether listener perceptions are susceptible to gender bias. Child participants (n = 71) between the ages of 6 years, 0 months and 12 years, 11 months were randomly assigned to view two of the four possible videos (male self-disclosure, male no self-disclosure, female self-disclosure, and female no self-disclosure). Directly following the viewing of both videos, participants completed a survey analyzing their perceptions of the speaker for various traits related to personality and intelligence. Results for effects of self-disclosure achieved significance for all ten questions. With regard to gender, there was a significant

difference for all questions except ‘more unintelligent’ and ‘less distracted’; however, when the gender viewing possibilities were compared across the three distinct groups (distinguished by whether the video pairing included the male speaker only, the female speaker only, or both a male and female speaker), there was no significant difference found. This suggests that the difference across responses are only present when all three gender groups are collapsed, which further indicates that gender did not have a distinct impact on the responses to the questions. Additionally, there was no significant interaction between self-disclosure and gender, suggesting that these two factors have independent, un-related influence on listener perception. In summary, the present findings indicate that the use of self-disclosure may positively impact children’s perceptions of other children who stutter, and that these perceptions are not uniquely impacted by gender.

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Introduction

Stuttering is a fluency disorder characterized by an atypical disruption in the forward flow of speech, such as repetitions or prolongations of a sound, syllable, or word (Van Riper, 1982). Thus, by definition, stuttering is a disorder of speech production. However, despite its classification as a speech disorder with no known psychological causes (Andrews et al., 1983), negative perceptions related to personality, intelligence, and other traits not associated with speech are often attributed to individuals who stutter. For example, individuals who stutter are commonly perceived to be more nervous, shy, anxious, and/or unintelligent in comparison to individuals who do not stutter. These perceptions are unfounded; persons who stutter do not differ from persons who do not stutter across these commonly (mis-) perceived negative traits (Bloodstein, 1995; Van Riper, 1982). Research has failed to demonstrate a correlation between psychological or personality differences and stuttering (Andrews et al., 1983; Buchel & Sommer, 2004; Goodstein, 1958; Sheehan, 1958). In addition, there is no existing evidence to support the belief that stuttering individuals are less intelligent than non-stuttering individuals. In fact, there are data to suggest that stutterers have higher intelligence levels as compared to the average intelligence of nonstutterers (Andrews & Harris, 1964; Cox, 1982).

Although these findings demonstrate that persons who stutter do not differ from persons who do not stutter in terms of personality and intelligence, negative stereotypes have been found to persist across a variety of populations, including speech-language pathologists (Lass, Ruscello, Pannbacker, Schmitt, & Everly-Meyers, 1989; Silverman,

1982; Turnbaugh, Guitar, & Hoffman, 1979; Woods & Williams, 1971; Yairi & Williams, 1970), teachers (Crowe & Walton, 1981; Lass et al., 1992; Woods & Williams, 1976; Yeakle & Cooper, 1986), parents (Crowe & Cooper, 1977; Woods & Williams, 1976), and, of particular relevance to the present study, school-age children (e.g., Franck, Jackson, Pimentel, & Greenwood, 2003).

Prior research has indicated that children generally have negative perceptions of their peers with communication disorders, including those with articulation disorders (Crowe Hall, 1991; Freeby & Madison, 1989), voice disorders (Lass, Ruscello, Bradshaw, & Blankenship, 1991), nasal resonance disorders (Blood & Hyman, 1977), and motor speech disorders (Lass, Ruscello, Harkins, & Blankenship, 1993). Findings have demonstrated that children as early as kindergarten react unfavorably toward speakers with communication disorders (Blood & Hyman, 1977). To investigate the perceptions of school-age children toward persons who stutter, Franck et al. (2003) designed a study in which fourth and fifth grade students (ages 9-11 years) viewed a videotape with the speaker either stuttering or speaking fluently while reading a poem. The students then rated the speaker on intelligence and personality traits. The findings indicated a significant difference between the perceptions of stutterers and nonstutterers, with the disfluent speaker being rated more negatively than the fluent speaker for both personality and intelligence characteristics. For example, the disfluent speaker was more often described as afraid, shy, insecure, and unfriendly.

Hartford and Leahy (2007) also examined children's (ages 6-13 years) perceptions of persons who stutter by comparing their ratings of a fluent adult speaker to

their ratings of the same adult producing simulated stuttering. The students responded to a series of questions regarding positive and negative qualities about the speakers after listening to an audio recording of both speakers telling a short story. The results revealed that the children evaluated the disfluent speaker more negatively than the fluent speaker, with the older children (ages 8-13 years) assigning more negative ratings than the younger children (ages 6-8 years). Furthermore, some of the children (primarily the oldest students, ages 11-13 years) favored the fluent speaker as a friend more often than the disfluent speaker. The younger children (ages 6-10 years), however, did not exhibit such a preference.

Although the studies by Franck et al. (2003) and Hartford and Leahy (2007) did not investigate children's perceptions of other children who stutter, as the speakers in the stimulus recordings for both studies were adults who stutter (or who produced simulated stuttering, as in the case of Hartford and Leahy, 2007), the findings reliably established that, in general, children hold negative perceptions of individuals who stutter. The findings also suggest that children's attitudes toward persons who stutter may become increasingly negative with age, and that this shift occurs approximately around the ages of 8-10 years as the child approaches adolescence.

Although little research has been conducted to examine specifically the attitudes of children toward other children who stutter, there has been documentation of negative peer perceptions toward school-age children who stutter (Langevin & Hagler, 2004; Langevin, Kleitman, Packman, & Onslow, 2009). Moreover, children who stutter endure adverse social consequences. They may be teased by peers (Blood & Blood, 2004, 2007;

Hugh-Jones & Smith, 1999; Langevin, Bortnick, Hammer, & Wiebe, 1998; Mooney & Smith, 1995), are less socially accepted, less likely to be viewed as leaders, and at greater risk for being bullied than children who do not stutter (Blood & Blood, 2004; Davis, Howell, & Cooke, 2002). Also, children who stutter are often perceived to have issues fitting in at school (Evans, Healey, Kawai, & Rowland, 2008), and may be selected as a friend less often than children who do not stutter (Hartford & Leahy, 2007). Although there is a dearth of empirical evidence on peer attitudes toward children who stutter, these findings indicate that children do indeed have negative perceptions of children who stutter. In addition, the aforementioned evidence of children's unfavorable perceptions of peers with various communication disorders suggests that these negative attitudes would extend toward children who stutter as well.

More extensive research has been conducted to examine listener perceptions of adults who stutter. Generally, stuttering individuals are perceived more negatively on a variety of traits related to personality and intelligence. Previous research has documented a distinctive stereotype of persons who stutter, which encompasses a variety of predominantly negative personality traits, including self-consciousness, shyness, nervousness, tension, anxiety, guardedness, reticence, fearfulness, and introversion (Turnbaugh, Guitar, & Hoffman, 1979, 1981; Woods & Williams, 1971, 1976). Woods & Williams (1976) investigated the perceptions of individuals from seven distinct participant groups of stuttering and normally fluent males to determine potential stereotypes of persons who stutter. Regardless of differing levels of prior exposure to stutterers among the distinct groups, participants rated hypothetical stutterers more

negatively on various personality traits (i.e., rating stutterers as shy, anxious, and nervous). Similarity in ratings across distinct groups implies that these unfavorable stereotypes may be common amongst most listeners within the general population rather than being limited to any special group based on level of prior exposure to stuttering.

Additionally, listeners demonstrate overt negative reactions to stuttering individuals. These reactions have been reported to include attempts to avoid or limit conversation (Hubbard, 1965; Rosenberg & Curtiss, 1954), physiological changes such as breath holding (Ainsworth, 1939), and unfavorable emotional responses (McDonald & Frick, 1954). These responses suggest that listeners are highly uncomfortable during interactions with stuttering individuals, and that their perceptions about the stutterer may be based on this discomfort.

Previous research has implied that the formulation of negative stereotypes regarding stutterers may be due in part to the discomfort or misunderstandings of the listener. Findings have demonstrated that people often anticipate stutterers to differ from nonstutterers in undesirable ways (Woods & Williams, 1976). The negative perceptions of persons who stutter may be explained by the listener's reaction to the temporary anxiety experienced by the stutterer as a result of the stress of stuttering when speaking. The listener may erroneously conclude that the individual is generally anxious in nature when, in fact, the anxiety is temporary and directly associated with the speaking situation (Woods & Williams, 1976).

Another related hypothesis regarding the origin of negative stereotypes of persons who stutter is that listeners may base their judgments about the typical stutterer upon

inferences drawn from their own experiences with disfluency. Normally fluent speakers occasionally experience disfluent speech that resembles stuttering, but that is fundamentally different from stuttered speech. That is, non-stuttering-like disfluencies displayed by normally fluent individuals may include phrase repetitions, interjections, and/or revisions, while stuttering-like disfluencies may include sound or syllable repetitions, word repetitions, and/or sound prolongations (also known as blocks). The temporary occurrences of disfluency experienced by normally fluent speakers typically occur in circumstances in which the speaker is shy, anxious, embarrassed, nervous, stressed, or self-conscious. Thus, these variables that are associated with non-stuttering-like disfluencies that occur in fluent speakers may be attributed as the cause of stuttering-like disfluencies that occur in individuals who stutter (White & Collins, 1984).

It has been suggested that in order to minimize negative perceptions and mediate unfavorable reactions associated with stuttering, stuttering individuals should self-disclose the fact that they are a person who stutters when engaging new communication partners. Research has revealed that nonstutterers favor interactions with stutterers who acknowledge their stuttering, and also attribute more favorable ratings on intelligence, personality traits (i.e., sincere, likeable, trustworthy, sociable, emotionally adjusted, etc.), and appearance to stutterers who acknowledge their stuttering (Collins & Blood, 1990). These findings support the use of open acknowledgment of the stutter, also known as self-disclosure, to promote social interaction and improve listener perceptions of the stutterer.

Self-disclosure of the stutter has been said to positively impact nonstutterers' perceptions of stutterers by reducing listener discomfort and uncertainty, thereby putting the listener at ease and promoting social interaction. Through acknowledgment of the stutter during the initial interaction, the nonstutterer becomes more comfortable and responds more positively to the stutterer. This improvement in listener reaction is likely to minimize the stutterer's expectation of an unfavorable response (Sheehan, 1975; Van Riper, 1982) and allow the stutterer to prevent or overcome any social barriers (Collins & Blood, 1990).

Further research has lent support to the notion that purposeful self-disclosure may improve listener perceptions of persons who stutter. A study conducted by Healey, Gabel, Daniels, and Kawai (2007) revealed that although there were no significant overall differences in ratings on a series of six personality traits (i.e., sincere, likeable, trustworthy, friendly, shows character, is emotionally well adjusted) for stutterers who self-disclosed versus those who did not, more favorable ratings were given when self-disclosure occurred at the beginning of the monologue as opposed to the end. This outcome suggests that, when used at the beginning of a communicative interaction, self-disclosure may be helpful in reducing negative perceptions of individuals who stutter, which is consistent with other findings (Lincoln & Bricker-Katz, 2008).

Lee and Manning (2010) also investigated the effects of self-disclosure (termed 'self-acknowledgment') on listener perceptions of persons who stutter. Participants listened to two randomly assigned conditions, one in which the speaker acknowledged his stutter and one in which he did not, providing listeners with the opportunity to experience

both conditions. The results demonstrated significant differences, with more favorable responses by listeners when self-acknowledgment of stuttering occurred. These findings imply that self-disclosure positively impacts listener perceptions, though perhaps only when the listener is given the opportunity to juxtapose the conditions of stuttering with and without self-disclosure.

The self-disclosure literature implies that the influence of self-disclosure may be subject to gender bias. With regards to the general perception of persons who stutter, men have been found to evaluate people who stutter more negatively than women (Burley & Rinaldi, 1986; Schroder, Melnick, Koul, & Keller, 2002). Similarly, Dietrich, Jensen, and Williams (2001) determined that females rate the personality traits of people who stutter more favorably than males. Conversely, there are data that have failed to demonstrate differences between male and female listeners when evaluating a speaker who stutters (Hulit & Wurtz, 1994; Patterson & Pring, 1991; Susca & Healey, 2001). These contradictory findings make it difficult to determine whether the gender of the listener impacts perceptions of persons who stutter. Furthermore, it is yet to be determined if the influence of self-disclosure is contingent upon gender. Healey et al. (2007) suggested that future research be conducted to investigate whether gender has a distinct impact on listener perceptions toward the disclosure of stuttering.

Many stuttering treatment programs encourage stutterers to accept, discuss, reveal, and confront their stuttering, including sharing their stuttering openly with listeners for desensitization purposes and to decrease fear and tension (Bloodstein, 1975; Sheehan, 1975; Van Riper, 1982). In addition to improving listener perceptions, the act of

self-disclosure can facilitate the stutterer's acceptance of his or her stuttering and can also decrease anxiety associated with stuttering (Healey et al., 2007). Although desensitization has long been used in stuttering intervention (e.g., Van Riper, 1973), the use of desensitization strategies (such as self-disclosure) for treatment of children who stutter has been investigated less thoroughly. To this author's knowledge, the only available evidence regarding the utility of purposeful self-disclosure for children who stutter is presented anecdotally in a single subject case study conducted by Murphy, Yaruss, and Quesal (2007). However, it has been well documented that negative reactions of others in the child's environment can have a significant effect on his or her experience of stuttering (Blood & Blood, 2004; Davis, Howell, & Cook, 2002; Langevin, 1997, 2000; Murphy et al., 2007). Not only can these negative experiences adversely affect the child's communication abilities, but they can also hinder their progress in therapy (Healey, Scott Trautman, & Susca, 2004). Purposeful self-disclosure can provide children with a means of effectively managing their stutter by minimizing the negative stigma of stuttering and by overcoming their own negative reactions to their speaking difficulties. Additionally, as presented in the case study conducted by Murphy et al. (2007), school age children report that purposeful self-disclosure is conducive to overcoming fears associated with stuttering.

In summary, the act of self-disclosure facilitates the child's ability to acknowledge, in an open, straightforward manner, the fact that he or she is a person who stutters. This act serves as a means of improving listener perceptions as well as a desensitization mechanism for the child who stutters. This desensitization process helps

the child who stutters to overcome the fear of stuttering and minimize negative self-reactions to speaking difficulties, which contributes to the development of a positive communication attitude. Given the evidence that suggests children who do not stutter have negative perceptions of their peers who stutter, coupled with the evidence that self-disclosure positively impacts listener perceptions of adults who stutter, it is important to investigate whether the benefits of self-disclosure observed with adults who stutter will also be achieved when employed by children who stutter.

Purpose

The primary purpose of the present study is to examine the effects of self-disclosure on listener perceptions of children who stutter. Specifically, this study aims to investigate whether listener perceptions will vary based upon the presence or absence of a self-disclosure statement prior to the speaker initiating his or her monologue. The secondary purpose is to determine if listener perception is susceptible to gender bias. The influence of self-disclosure on listener perceptions will be examined by presenting individual stimulus recordings of both a male and also a female child who stutters reading identical passages to children who do not stutter. We hypothesize that the self-disclosure condition will produce significantly more positive listener perceptions as compared to the no self-disclosure condition. We further hypothesize that gender bias will only be present when self-disclosure does not occur. Findings are expected to lend empirical support to the effectiveness of self-disclosure as a strategy for children who stutter to facilitate acceptance of their stuttering as well as positively impact listener perceptions.

Method

Study Design

The design of the present study is a systematic replication of that which was conducted by Colleen Cappellini for her Master's thesis, which was completed in May of 2012 at The University of Texas at Austin under the supervision of Courtney T. Byrd, Ph.D., CCC-SLP, also the supervisor of the present study. The study conducted by Cappellini sought to examine the effects of self-disclosure on listener perceptions of adults who stutter. The present study systematically replicated the adult study's design, but fundamental changes were made in order to evaluate the effects of self-disclosure in regards to children. These changes included featuring a male and female *child* in the stimulus videos as well as the recruitment of *child* participants for the study.

This survey-based study sought to explore the perceptions that children who do not stutter (CWNS) have of a male and female child who stutters (CWS) when the CWS does or does not self-disclose that he or she stutters prior to reciting a passage. It is anticipated that the findings of the present study will lend empirical support to the clinical utility of self-disclosure in the treatment of school-age CWS as a way to promote and enhance successful communication interactions and interpersonal relations. The participants viewed two of four possible videos: 1) male who self-discloses, 2) male who does not self-disclose, 3) female who self-discloses, and 4) female who does not self-disclose, and were then asked to complete a survey questionnaire immediately afterward. Once the videos and survey were completed, the participants and their parent were given

a debriefing form that provided a complete and detailed description of the purpose of the study so as to inform the participant and his or her parent about stuttering as well as the practical implications and prospective advantages of self-disclosure.

STIMULI

Speakers. The male CWS was 7 years, 5 months old at the time of filming and has been stuttering since the age of three. He had been enrolled in speech therapy at the University of Texas Speech and Hearing Center (UTSHC) for one and a half months prior to the filming and was well-practiced in the technique of voluntary stuttering. The female CWS was 9 years, 7 months old at the time of filming and has also been stuttering since the age of three. She was enrolled in speech therapy at UTSHC from the age of 4 until the age of 7, at which time she began receiving services at a location closer to her home, and was enrolled in these services at the time of filming. She was also familiar and competent in use of voluntary stuttering. Both children were native English speakers and lived in the Austin, Texas metropolitan area. They were chosen based on their familiarity with and proficiency in using voluntary stuttering, as well as their similarity in appearance for age and maturity. Neither individual presented with regional accents, and both demonstrated normal articulation, vocal quality, resonance, nasality, speech rate, and speech loudness.

Recording equipment. The stimulus videos were recorded by a staff member of the Moody College of Communication at the University of Texas at Austin. This staff member has advanced editing and production skills as well as access to state of the art

filming equipment, and has been producing video for the Moody College of Communication for 13 years. The videos were recorded with a Panasonic AG-HMC150, along with a Sennheiser EW 100 G3 wireless microphone system. The videos were edited using Final Cut Pro 7.0 on an Apple Mac Pro then exported as Quicktime movie files using the H.264 video codec. The videos were then uploaded to a secure content sharing platform ('Box, Inc.') that could only be accessed by IRB-approved personnel and the creator of the video himself. In order to provide video access to all IRB-approved researchers, the videos were then uploaded to a secure file hosting service ('DropBox, Inc.') and could only be accessed by the IRB qualified personnel with whom the files were electronically shared. Once accessed, the files were then downloaded to a laptop to allow for participant viewing.

Setting. The male and female CWS were filmed individually, sitting in the same blue canvas chair in the same room directly facing the camera. The children were seated at the head of a long, wooden table and in front of a plain white wall. Just above the speaker, the lower portion of a two-way mirror was in partial view (although no significant reflections were captured in the video). In order to eliminate potential distractions, nothing else was visible in the frame.

Filming. The stimulus videos were video-recordings of the speakers reading an adapted version of the Rainbow Passage (see Appendix A). The script of the passage, excluding the self-disclosure statement, was modified with the following voluntary stutters embedded and typed in red for the speaker to easily identify: single sound repetitions (7.8%), audible sound prolongations (10.8%), and inaudible sound

prolongations (5.4%), so that the total number of stutters per number of words was 24.1%. Both speakers reviewed and rehearsed reciting the passage numerous times prior to filming so as to familiarize themselves with the script. The speakers were instructed to incorporate the voluntary stutters (of type and duration/iteration) as indicated in the modified passage. They adhered to the script as closely as possible, but due to the additional occurrence of involuntary natural stutters, the male and female stimulus videos differed slightly from the script, and thus from each other. However, post-production analysis of the videos demonstrated that the percentages for types of stutters were comparable between the male and female stimulus videos (see Table 1).

Each speaker was filmed from the waist up, alone in the frame, and directly facing the viewer. Each recording began with the speaker greeting the viewer, introducing themselves by their first name, and informing the viewer that they would be reciting a passage about rainbows. Each speaker then provided the following self-disclosure statement: "I sometimes stutter, so you might hear me repeat words or sounds, but if you have any questions or want me to say anything again, just let me know." After delivering this statement, the speakers went on to read the modified passage script.

The no self-disclosure video was created by removing the self-disclosure statement using advanced editing software to prevent the viewer from detecting this alteration. Thus, the self-disclosure and no self-disclosure stimulus videos were identical with the exception of the presence of the self-disclosure statement.

Table 1. Percentages of Stutters in Stimulus Passages

	Male	Female
Single-sound repetitions (SSR)	8.4%	8.4%
Whole word repetitions (WWR)	0.6%	0.6%
Audible sound prolongations (ASP)	10.8%	13.9%
Inaudible sound prolongations/blocks (ISP)	4.8%	4.2%
Other*	0%	0.6%
Total stuttering-like disfluencies per total words in passage	24.7%	27.7%

*Female speaker produced a disfluency cluster, in which a word was produced with both a SSR and ISP.

SURVEY

A survey questionnaire, comprised of two sections, was given to the participants upon completion of the videos. The first section included ten three-alternative forced choice questions (including an option for neutrality) that examined the viewer's perception of the speaker for various personality traits. For example, "In which tape do you think the speaker appears friendlier?" (three alternative choices: Tape 1, Tape 2, No difference). The second section was comprised of ten subjective open-ended questions to obtain further information about the participant's prior experience with individuals who stutter and stuttering in general. For example, "Have you ever personally known someone who stutters?" This section also prompted the participant to provide one to three comments about their perceptions of the speaker in each tape, as well as the speaker's communication in each tape. Finally, a section was provided for the participants to include any additional comments related to the experiment.

PARTICIPANTS

Participants for this study were recruited from the general population of Austin, Texas and its surrounding areas. Participants were recruited through e-mail correspondence and by word of mouth. All participants were required to meet the following criteria for inclusion in the present study: (a) native English-speaker; (b) between the ages of 6 years; 0 months and 12 years; 11 months; (c) normal (or corrected-to-normal) vision and hearing as determined per self-report (or parent report); and (d) no presence of a speech or language disorder. A total of 71 participants were included in this study. Participants and their parents were given a general description of the purpose of the study prior to participation, but the specifics were withheld until a debriefing session immediately following completion of the survey so as to avoid any potential influence of bias. Informed consent from the parent in addition to informed assent from the child were obtained for each participant.

PROCEDURES

Participants met with one of the researchers at a location of the parent's choosing, and were taken to a quiet room free from distractions. A consent form including a brief description of the study was provided to the parent, and an assent form with the same information stated in simpler terms was provided to the child participant. If needed, the researcher read the description of the study provided on the assent form aloud to the child participant. Each participant was tested individually with one researcher (or an IRB qualified research assistant) supervising each session. The participant was informed that

he or she would be viewing two short videos and then asked to complete a short survey concerning the videos.

Prior to viewing the recordings, the participants completed a pre-screener word-meaning exercise followed by a 15 to 30 minute break. This pre-screener was to ensure that the participants understood the meaning of the words included on the survey that they would be required to complete immediately following their viewing of the two recordings. The pre-screener consisted of nine vocabulary words taken directly from the survey questionnaire with three-alternative forced choice answers per word. The child was asked to choose the best definition for each word (see Appendix B). If the child completed the pre-screener with 100% accuracy on the first trial, a 15-minute break ensued. If the child did not complete the pre-screener with 100% accuracy on the first trial, a subsequent trial was held after a brief teaching period, followed by a 30-minute break. The break was incorporated into the study design to avoid the influence of potential bias caused by exposure to the survey's vocabulary immediately prior to viewing the videos.

After completion of the pre-screener and the subsequent break time, the participant viewed two of the four possible recordings on a laptop computer while sitting in a quiet room. The brightness and volume of the video were adjusted to allow for maximum viewing quality. The selection of the recordings viewed by each participant was counterbalanced relative to gender and self-disclosure. This was accomplished through systematic randomization, which was facilitated by a list that was generated to contain every possible order of video pairings. There were twelve total possible video

order pairings. As participants were scheduled to be tested, they were assigned to the subsequent video pairing on the list (according to their gender, to control for equal number of males and females per video order group), and that pairing was then marked off the list. This list was repeated until the required number of participants was obtained. To view all video order permutations, please refer to Table 2 below. While the participant viewed the videos, the researcher sat quietly in the corner reading so as not to distract the participant or make him or her feel uncomfortable.

After the participant had completed the two viewings, the researcher asked him or her to read the directions of the survey thoroughly and answer the questions to the best of his or her ability. The researcher again sat quietly in the corner reading to allow the participant to complete the survey without distraction or discomfort. Parents and/or the student researcher were permitted to assist the child participant with the completion of the survey if the child demonstrated a need for assistance, but were instructed to provide only neutral guidance that would not influence the child's responses. Such assistance included reading the survey questions and answer choices aloud to the participant with neutral intonation, recording the child's verbal responses verbatim onto the survey, and/or providing clarification for words or ideas used in the survey (e.g., describing "perception" as what the participant thought or felt about the speaker). The survey portion of the experiment was audio recorded to allow for post-session review of the child's verbal responses by the researcher to ensure that the responses were recorded completely and accurately. The survey was completed in 15 to 30 minutes for most participants, but this was dependent upon the age of the participant – the younger

participants, understandably, required more time to complete the survey. Following survey completion, the participant and his or her parent were provided with a debriefing form, which contained extensive details about the specific purpose of the project. Any questions the participant and/or the parent had regarding the study were addressed during this time.

Table 2. Video Order Permutations

	Gender of Viewer	Video Order
1	Male	Male SD, Male NSD
	Female	Male SD, Male NSD
2	Male	Male SD, Female SD
	Female	Male SD, Female SD
3	Male	Male SD, Female NSD
	Female	Male SD, Female NSD
4	Male	Male NSD, Male SD
	Female	Male NSD, Male SD
5	Male	Male NSD, Female SD
	Female	Male NSD, Female SD
6	Male	Male NSD, Female NSD
	Female	Male NSD, Female NSD
7	Male	Female SD, Male SD
	Female	Female SD, Male SD
8	Male	Female SD, Male NSD
	Female	Female SD, Male NSD
9	Male	Female SD, Female NSD
	Female	Female SD, Female NSD
10	Male	Female NSD, Male SD
	Female	Female NSD, Male SD
11	Male	Female NSD, Male NSD
	Female	Female NSD, Male NSD
12	Male	Female NSD, Female SD
	Female	Female NSD, Female SD

SD = Self-disclosure statement was present
NSD = No self-disclosure statement was present

DATA STORAGE

Data were stored electronically on a password-protected computer. Physical copies of the surveys, as well as consent and assent forms, were stored in a locked filing cabinet inside a locked room in the University of Texas Speech and Hearing Center (UTSHC). Only IRB-approved personnel were able to access the surveys.

STATISTICS

Data from the surveys were collected and coded in Microsoft Excel spreadsheets. A Multivariate Analysis of Variance (MANOVA) was completed using SPSS (SPSS, Inc., Chicago, IL), with the response to each of the ten survey questions as the dependent variables and self-disclosure and gender as the independent variables. In addition, to account for the potential impact of participant gender on the responses provided, the gender of the participant was included as a covariate. Results were considered significant at $p < 0.05$.

To determine whether the responses differed depending on the self-disclosure viewing group of the participant, we completed a series of Bonferroni-corrected t-tests of the mean response differences per question across the three distinct self-disclosure viewing groups. These viewing groups are distinguished as follows: (a) viewed self-disclosure videos only, (b) viewed no self-disclosure videos only, and (c) viewed a combination of self-disclosure and no self-disclosure videos. Results were considered

significant at $p < 0.005$. Additionally, frequency distribution information was determined to demonstrate the distribution of participant responses for each survey question per self-disclosure viewing group. The number as well as the percentage of participants per self-disclosure viewing group that selected each response was determined. In addition, to investigate whether or not gender uniquely impacted participant responses, we again completed a series of Bonferroni-corrected independent sample t-tests.

Results

To review, the purpose of the present study was to determine whether self-disclosure significantly impacts listener perception of the speaker. We also wanted to determine whether gender uniquely impacted perception as well or if perhaps the impact of self-disclosure was mediated by gender. A Multivariate Analysis of Variance (MANOVA) was completed with the response to each of the ten survey questions as the dependent variables and self-disclosure and gender as the independent variables. Additionally, to account for the potential impact of participant gender on the responses provided, the gender of the participant was included as a covariate. With regard to self-disclosure, there was a significant difference across all ten questions ($p < 0.05$). For gender, there was a significant difference for all questions except more unintelligent and less distracted ($p < 0.05$). There was no significant interaction between self-disclosure and gender suggesting that these two factors have independent, un-related influence on listener perception. See Table 1 for the MANOVA results and related significance.

Table 3. Multivariate Analysis of Variance Results

Source	Dependent Variable	df	Mean Square	F	Sig.
Self-Disclosure	More Friendly	2	65.903	13.214	.000
	More Outgoing	2	107.344	25.977	.000
	More Intelligent	2	58.828	11.182	.000
	More Confident	2	79.027	14.942	.000
	More Distracted	2	76.168	16.865	.000
	More Unfriendly	2	51.554	10.311	.000
	More Shy	2	87.580	24.953	.000
	More Unintelligent	2	38.078	6.633	.002

Table 3 (continued)

	More Insecure	2	93.978	17.469	.000
	Less Distracted	2	57.253	13.608	.000
Gender	More Friendly	2	24.473	4.907	.011
	More Outgoing	2	54.342	13.151	.000
	More Intelligent	2	21.905	4.164	.020
	More Confident	2	26.030	4.922	.010
	More Distracted	2	22.551	4.993	.010
	More Unfriendly	2	28.376	5.675	.005
	More Shy	2	38.179	10.878	.000
	More Unintelligent	2	13.815	2.407	.098
	More Insecure	2	42.011	7.809	.001
	Less Distracted	2	12.729	3.025	.056

*Degrees of freedom (2,62)

FOLLOW-UP ANALYSES

To review, the results from the MANOVA suggest that there was no interaction between gender and self-disclosure. However, the manner in which the data was coded may have obscured the ability to see any relationship between these two significant main effects. To determine whether the responses differed depending on the self-disclosure viewing group of the participant, we completed a series of Bonferroni-corrected t-tests of the mean response differences per question across the three distinct self-disclosure viewing groups. The three self-disclosure viewing groups will be referred to as A (viewed self-disclosure videos only), B (viewed no self-disclosure videos only), and C (viewed a combination of self-disclosure and no self-disclosure videos). Results revealed that when comparing the self-disclosure groups of A versus B, the only question that demonstrated a significant difference in participant responses was ‘more outgoing’ ($p < 0.005$). See Table 4 for the related t values, degrees of freedom, and associated significance.

Additionally, frequency distribution information was determined to demonstrate the distribution of participant responses for each survey question per self-disclosure viewing group. The frequency distribution information for group A versus B is presented in Tables 5.1-5.10 and the results are described below.

For the self-disclosure groups of A and B, the video pairings differed by gender only. Thus, the participants could respond to each question in a way that (a) favored the male speaker who either self-disclosed (group A) or did not self-disclose (group B); (b) favored the female speaker who either self-disclosed (group A) or did not self-disclose (group B); or (c) was neutral. The three possible scores attributed to each response for self-disclosure groups A and B were neutral (scored as 0), favors male (scored as 1), and favors female (scored as 2). The frequency distribution tables (Tables 5.1-5.10) display the number of participants who selected each answer choice (0, 1, or 2) for each survey question.

As demonstrated in Table 5.2 below, for the question 'more outgoing' (the only question that demonstrated a significant difference in participant responses for the groups of A versus B), 58.3% of participants in group A favored the male speaker, 41.7% favored the female speaker, and none selected the neutral response. In group B, the majority of participants (72.7%) responded neutrally, 18.2% favored the male speaker, and 9.1% favored the female speaker. To summarize, the participants who viewed the self-disclosure videos only (group A) tended to prefer the male speaker most often. Those who viewed the videos without self-disclosure (group B) tended to respond neutrally.

Table 4. Independent Sample t-Test Results for Self Disclosure (A vs. B)

		t	df	Sig. (2-tailed)
More Friendly	Equal variances assumed	2.296	21	.032
	Equal variances not assumed	2.375	14.468	.032
More Outgoing*	Equal variances assumed	4.232	21	.000
	Equal variances not assumed	4.182	18.694	.001
More Intelligent	Equal variances assumed	1.877	21	.074
	Equal variances not assumed	1.891	20.894	.073
More Confident	Equal variances assumed	2.285	21	.033
	Equal variances not assumed	2.300	20.942	.032
More Distracted	Equal variances assumed	2.646	21	.015
	Equal variances not assumed	2.610	18.280	.018
More Unfriendly	Equal variances assumed	2.095	20	.049
	Equal variances not assumed	2.095	12.725	.057
More Shy	Equal variances assumed	2.906	21	.008
	Equal variances not assumed	2.887	19.918	.009
More Unintelligent	Equal variances assumed	1.186	21	.249
	Equal variances not assumed	1.199	20.498	.244
More Insecure	Equal variances assumed	2.335	21	.030
	Equal variances not assumed	2.344	21.000	.029
Less Distracted	Equal variances assumed	2.023	21	.056
	Equal variances not assumed	2.012	20.145	.058

*P-value < or equal to 0.005 per Bonferroni-correction

Table 5. Frequency Distribution of Participant Responses for Self-Disclosure (A vs. B)

5.1 More Friendly

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	6	50.0	10	90.9
1	4	33.3	1	9.1
2	2	16.7	0	0
Total	12	100.0	11	100.0

5.2 More Outgoing*

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	0	0.0	8	72.7
1	7	58.3	2	18.2
2	5	41.7	1	9.1
Total	12	100.0	11	100.0

5.3 More Intelligent

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	4	33.3	7	63.6
1	1	8.3	2	18.2
2	7	58.3	2	18.2
Total	12	100.0	11	100.0

5.4 More Confident

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	2	16.7	5	45.5
1	4	33.3	5	45.5
2	6	50.0	1	9.1
Total	12	100.0	11	100.0

5.5 More Distracted

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	0	0.0	3	27.3
1	5	41.7	6	54.5
2	7	58.3	2	18.2
Total	12	100.0	11	100.0

5.6 More Unfriendly

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	6	50.0	10	90.9
1	3	25.0	1	9.1
2	2	16.7	0	0.0
Total	11*	91.7*	11	100.0

*1 out of 12 total participants failed to respond.

5.7 More Shy

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	0	0.0	3	27.3
1	6	50.0	7	63.6
2	6	50.0	1	9.1
Total	12	100.0	11	100.0

5.8 More Unintelligent

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	6	50.0	8	72.7
1	3	25.0	2	18.2
2	3	25.0	1	9.1
Total	12	100.0	11	100.0

5.9 More Insecure

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	2	16.7	6	54.5
1	5	41.7	4	36.4
2	5	41.7	1	9.1
Total	12	100.0	11	100.0

5.10 Less Distracted

	Self-Disclosure Group A		Self-Disclosure Group B	
Response	Frequency	Percent	Frequency	Percent
0	1	8.3	4	36.4
1	5	41.7	5	45.5
2	6	50.0	2	18.2
Total	12	100.0	11	100.0

When comparing self-disclosure groups A versus C, the questions that demonstrated a significant difference in participant responses were ‘more distracted’, ‘more shy’, and ‘less distracted’. See Table 6 for the related t values, degrees of freedom, and associated significance. See Tables 7.1-7.10 for the frequency distribution of participant responses for each question. The results for the questions that demonstrated a significant difference are described below.

For self-disclosure group A, the video pairings differed by gender only, as the participants viewed the videos in which each speaker self-disclosed. Thus, the participants could have responded to each question in a way that (a) favored the male speaker who self-disclosed (scored as 1); (b) favored the female speaker who self-disclosed (scored as 2); or (c) was neutral (scored as 0). By comparison, for self-

disclosure group C, the video pairings differed on the self-disclosure condition (i.e., whether or not self-disclosure was present). Thus, the participants may have viewed a video pairing that differed on the self-disclosure condition only (e.g., viewed the male self-disclosure video followed by the male no self-disclosure video), or a video pairing that differed on both gender and self-disclosure conditions (e.g., viewed the male self-disclosure video followed by the female no self-disclosure video). Therefore, the participants could have responded to each question in a way that (a) favored self-disclosure (SD) when gender remained constant (scored as 3); (b) favored no self-disclosure (NSD) when gender remained constant (scored as 4); (c) favored male SD (scored as 5); (d) favored female SD (scored as 6); (e) favored male NSD (scored as 7); (f) favored female NSD (scored as 8); or (g) was neutral (scored as 0).

For the question 'more distracted' (Table 7.5), 58.3% of participants in group A favored the female speaker, 41.7% favored the male speaker, and none responded neutrally. In group C, 35.4% favored the SD video when gender remained constant, 18.8% responded neutrally, 14.6% favored the female SD video, 14.6% favored the female NSD video, 8.3% favored the NSD video when gender remained constant, 4.2% favored the male SD video, and 4.2% favored the male NSD video. To summarize, the participants who viewed the self-disclosure videos only (group A) tended to prefer the female speaker most often. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 54.2% favored the video in which the self-disclosure statement was presented as compared to 27.1% who favored the video in which the self-disclosure statement was not presented, and 18.8% responded neutrally.

These findings suggest that for this condition self-disclosure was more critical to listener perception than gender.

For the question 'more shy' (Table 7.7), 50% of participants in group A favored the female speaker and 50% favored the male speaker. None of the participants responded neutrally. In group C, 25% favored the SD video when gender remained constant, 20.8% responded neutrally, 10.4% favored the NSD video when gender remained constant, the male SD video, the female SD video, and the male NSD video, respectively, while 8.3% of participants favored the female NSD video. To summarize, the participants who viewed the self-disclosure videos only (group A) favored the male and female speaker with equal frequency. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 45.8% favored the video in which the self-disclosure statement was presented as compared to 29.1% who favored the video in which the self-disclosure statement was not presented, and 20.8% responded neutrally. Because two of the 48 participants in group C failed to respond to this question, 4.2% of the response set is unaccounted for.

For the question 'less distracted' (Table 7.10), 50% of participants in group A favored the female speaker, 41.7% favored the male speaker, and 8.3% responded neutrally. In group C, 31.3% favored the SD video when gender remained constant, 22.9% responded neutrally, 14.6% favored the female SD video, 10.4% favored the NSD video when gender remained constant and the female NSD video, respectively, 6.3% favored the male SD video, and 4.2% favored the male NSD video. To summarize, the participants who viewed the self-disclosure videos only (group A) favored the female

speaker most often. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 52.2% favored the video in which the self-disclosure statement was presented as compared to 25% who favored the video in which the self-disclosure statement was not presented, and 22.9% responded neutrally.

Table 6. Independent Sample t-Test Results for Self Disclosure (A vs. C)

		T	df	Sig. (2-tailed)
More Friendly	Equal variances assumed	-2.550	58	.013
	Equal variances not assumed	-4.522	57.135	.000
More Outgoing	Equal variances assumed	-2.713	58	.009
	Equal variances not assumed	-5.149	56.120	.000
More Intelligent	Equal variances assumed	-2.364	57	.022
	Equal variances not assumed	-3.939	51.674	.000
More Confident	Equal variances assumed	-2.873	58	.006
	Equal variances not assumed	-5.107	57.282	.000
More Distracted*	Equal variances assumed	-3.087	58	.003
	Equal variances not assumed	-5.808	56.874	.000
More Unfriendly	Equal variances assumed	-1.975	56	.053
	Equal variances not assumed	-3.598	54.294	.001
More Shy*	Equal variances assumed	-3.116	56	.003
	Equal variances not assumed	-5.744	54.632	.000
More Unintelligent	Equal variances assumed	-2.001	58	.050
	Equal variances not assumed	-3.485	55.847	.001
More Insecure	Equal variances assumed	-2.793	58	.007
	Equal variances not assumed	-5.046	57.894	.000
Less Distracted*	Equal variances assumed	-2.970	58	.004
	Equal variances not assumed	-5.352	57.832	.000

*P-value < or equal to 0.005 per Bonferroni-correction

Table 7. Frequency Distribution of Participant Responses for Self-Disclosure (A vs. C)

7.1 More Friendly

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	6	50.0	21	43.8
1	4	33.3	-	-
2	2	16.7	-	-
3	-	-	10	20.8
4	-	-	3	6.3
5	-	-	1	2.1
6	-	-	9	18.8
7	-	-	1	2.1
8	-	-	3	6.3
Total	12	100.0	48	100.0

7.2 More Outgoing

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	0	0.0	14	29.2
1	7	58.3	-	-
2	5	41.7	-	-
3	-	-	10	20.8
4	-	-	4	8.3
5	-	-	5	10.4
6	-	-	6	12.5
7	-	-	4	8.3
8	-	-	5	10.4
Total	12	100.0	48	100.0

7.3 More Intelligent

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	4	33.3	17	35.4
1	1	8.3	-	-
2	7	58.3	-	-
3	-	-	8	16.7
4	-	-	7	14.6
5	-	-	1	2.1
6	-	-	8	16.7
7	-	-	3	6.3
8	-	-	3	6.3
Total	12	100.0	47*	97.9*

*1 out of 48 total participants failed to respond.

7.4 More Confident

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	2	16.7	13	27.1
1	4	33.3	-	-
2	6	50.0	-	-
3	-	-	11	22.9
4	-	-	7	14.6
5	-	-	2	4.2
6	-	-	4	8.3
7	-	-	5	10.4
8	-	-	6	12.5
Total	12	100.0	48	100.0

7.5 More Distracted*

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	0	0.0	9	18.8
1	5	41.7	-	-
2	7	58.3	-	-
3	-	-	17	35.4
4	-	-	4	8.3
5	-	-	2	4.2
6	-	-	7	14.6
7	-	-	2	4.2
8	-	-	7	14.6
Total	12	100.0	48	100.0

7.6 More Unfriendly

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	6	50.0	25	52.1
1	3	25.0	-	-
2	2	16.7	-	-
3	-	-	8	16.7
4	-	-	2	4.2
5	-	-	1	2.1
6	-	-	6	12.5
7	-	-	-	-
8	-	-	5	10.4
Total	11*	91.7*	47**	97.9**

*1 out of 12 total participants failed to respond.
**1 out of 47 total participants failed to respond.

7.7 More Shy*

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	0	0.0	10	20.8
1	6	50.0	-	-
2	6	50.0	-	-
3	-	-	12	25.0
4	-	-	5	10.4
5	-	-	5	10.4
6	-	-	5	10.4
7	-	-	5	10.4
8	-	-	4	8.3
Total	12	100.0	46*	95.8*

*2 out of 48 participants failed to respond.

7.8 More Unintelligent

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	6	50.0	25	52.1
1	3	25.0	-	-
2	3	25.0	-	-
3	-	-	7	14.6
4	-	-	4	8.3
5	-	-	1	2.1
6	-	-	6	12.5
7	-	-	1	2.1
8	-	-	4	8.3
Total	12	100.0	48	100.0

7.9 More Insecure

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	2	16.7	15	31.3
1	5	41.7	-	-
2	5	41.7	-	-
3	-	-	7	14.6
4	-	-	8	16.7
5	-	-	3	6.3
6	-	-	5	10.4
7	-	-	2	4.2
8	-	-	8	16.7
Total	12	100.0	48	100.0

7.10 Less Distracted*

	Self-Disclosure Group A		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	1	8.3	11	22.9
1	5	41.7	-	-
2	6	50.0	-	-
3	-	-	15	31.3
4	-	-	5	10.4
5	-	-	3	6.3
6	-	-	7	14.6
7	-	-	2	4.2
8	-	-	5	10.4
Total	12	100.0	48	100.0

For the self-disclosure groups B versus C, there was a significant difference in responses for all of the questions except for more unfriendly and more unintelligent. See Table 8 for the related t values, degrees of freedom and associated significance. See Tables 9.1-9.10 for the frequency distribution of participant responses for each question.

The results for the questions that demonstrated a significant difference are described below.

For self-disclosure group B, the video pairings differed by gender only, as the participants viewed the videos in which each speaker did not self-disclose. Thus, the participants could have responded to each question in a way that (a) favored the male speaker who did not self-disclose (scored as 1); (b) favored the female speaker who did not self-disclose (scored as 2); or (c) was neutral (scored as 0). For self-disclosure group C, the video pairings differed on the self-disclosure condition (i.e., whether or not self-disclosure was present). Thus, the participants may have viewed a video pairing that differed on the self-disclosure condition only (e.g., viewed the male self-disclosure video followed by the male no self-disclosure video), or a video pairing that differed on both gender and self-disclosure conditions (e.g., viewed the male self-disclosure video followed by the female no self-disclosure video). Therefore, the participants could have responded to each question in a way that (a) favored self-disclosure (SD) when gender remained constant (scored as 3); (b) favored no self-disclosure (NSD) when gender remained constant (scored as 4); (c) favored male SD (scored as 5); (d) favored female SD (scored as 6); (e) favored male NSD (scored as 7); (f) favored female NSD (scored as 8); or (g) was neutral (scored as 0).

For the question 'more friendly' (Table 9.1), 90.9% of participants in group B responded neutrally, 9.1% favored the male speaker, and none favored the female speaker. In group C, 43.8% responded neutrally, 20.8% favored the SD video when gender remained constant, 18.8% favored the female SD video, 6.3% favored the NSD

video when gender remained constant and the female NSD video, respectively, and 2.1% favored the male SD video and the male NSD video, respectively. To summarize, the majority of participants who viewed the no self-disclosure videos only (group B) responded neutrally. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 41.7% favored the video in which the self-disclosure statement was presented as compared to 14.7% who favored the video in which the self-disclosure statement was not presented. However, the majority of participants in group C (43.8%) responded neutrally.

For the question 'more outgoing' (Table 9.2), 72.7% of participants in group B responded neutrally, 18.2% favored the male speaker, and 9.1% favored the female speaker. In group C, 29.2% responded neutrally, 20.8% favored the SD video when gender remained constant, 12.5% favored the female SD video, 10.4% favored the male SD video and the female NSD, respectively, and 8.3% favored the NSD video when gender remained constant and the male NSD video, respectively. To summarize, the majority of participants who viewed the no self-disclosure videos only (group B) responded neutrally. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 43.7% favored the video in which the self-disclosure statement was presented as compared to 27% who favored the video in which the self-disclosure statement was not presented, and 29.2% responded neutrally.

For the question 'more intelligent' (Table 9.3), 63.6% of participants in group B responded neutrally, and 18.2% favored the male and female speaker, respectively. In group C, 35.4% responded neutrally, 16.7% favored the SD video when gender remained

constant and the female SD video, respectively, 14.6% favored the NSD video when gender remained constant, 6.3% favored the male NSD video and the female NSD video, respectively, and 2.1% favored the male SD video. To summarize, the majority of participants who viewed the no self-disclosure videos only (group B) responded neutrally. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 35.5% favored the video in which the self-disclosure statement was presented as compared to 27.2% who favored the video in which the self-disclosure statement was not presented, and 35.4% responded neutrally. Because one out of the 48 participants in group C failed to respond to this question, 2.1% of the response set is unaccounted for.

For the question 'more confident' (Table 9.4), 45.5% of participants in group B responded neutrally, 45.5% favored the male speaker, and 9.1% favored the female speaker. In group C, 27.1% responded neutrally, 22.9% favored the SD video when gender remained constant, 14.6% favored the NSD video when gender remained constant, 12.5% favored the female NSD video, 10.4% favored the male NSD video, 8.3% favored the female SD video, and 4.2% favored the male SD video. To summarize, an equal number of participants who viewed the no self-disclosure videos only (group B) responded neutrally as did favor the male speaker. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 35.4% favored the video in which the self-disclosure statement was presented as compared to 37.5% who favored the video in which the self-disclosure statement was not presented, and 27.1% responded

neutrally. Thus, for this question, the majority of participants in group C favored the no self-disclosure videos over those in which the self-disclosure statement was present.

For the question 'more distracted' (Table 9.5), 54.5% of participants in group B favored the male speaker, 27.3% responded neutrally, and 18.2% favored the female speaker. In group C, 35.4% favored the SD video when gender remained constant, 18.8% responded neutrally, 14.6% favored the female SD video and the female NSD video, respectively, 8.3% favored the NSD video when gender remained constant, and 4.2% favored the male SD video and male NSD video, respectively. To summarize, the majority of participants who viewed the no self-disclosure videos only (group B) favored the male speaker. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 54.2% favored the video in which the self-disclosure statement was presented as compared to 27.1% who favored the video in which the self-disclosure statement was not presented, and 18.8% responded neutrally.

For the question 'more shy' (Table 9.7), 63.6% of participants in group B favored the male speaker, 27.3% responded neutrally, and 9.1% favored the female speaker. In group C, 25% favored the SD video when gender remained constant, 20.8% responded neutrally, 10.4% favored the NSD video when gender remained constant, the male SD video, the female SD video, and the male NSD video, respectively, and 8.3% favored the female NSD video. To summarize, the majority of participants who viewed the no self-disclosure videos only (group B) favored the male speaker. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 45.8% favored the video in which the self-disclosure statement was presented as compared to 29.1%

who favored the video in which the self-disclosure statement was not presented, and 20.8% responded neutrally. Because two of the 48 participants in group C failed to respond to this question, 4.2% of the response set is unaccounted for.

For the question 'more insecure' (Table 9.9), 54.5% of participants in group B responded neutrally, 36.4% favored the male speaker, and 9.1% favored the female speaker. In group C, 31.3% responded neutrally, 16.7% favored the NSD video when gender remained constant and the female NSD video, respectively, 14.6% favored the SD video when gender remained constant, 10.4% favored the female SD video, 6.3% favored the male SD video, and 4.2% favored the male NSD video. To summarize, the majority of participants who viewed the no self-disclosure videos only (group B) responded neutrally. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 31.3% favored the video in which the self-disclosure statement was presented as compared to 37.6% who favored the video in which the self-disclosure statement was not presented, and 31.3% responded neutrally. Thus, for this question, the majority of participants in group C favored the no self-disclosure videos over those in which the self-disclosure statement was present.

For the question 'less distracted' (Table 9.10), 45.5% of participants in group B favored the male speaker, 36.4% responded neutrally, and 18.2% favored the female speaker. In group C, 31.3% favored the SD video when gender remained constant, 22.9% responded neutrally, 14.6% favored the female SD video, 10.4% favored the NSD video when gender remained constant and the female NSD video, respectively, 6.3% favored the male SD video, and 4.2% favored the male NSD video. To summarize, the majority

of participants who viewed the no self-disclosure videos only (group B) favored the male speaker. For those who viewed the videos that differed on the self-disclosure condition (group C), a total of 52.2% favored the video in which the self-disclosure statement was presented as compared to 25% who favored the video in which the self-disclosure statement was not presented, and 22.9% responded neutrally.

Table 8. Independent Samples t-Test Results Self-Disclosure (B vs. C)

		T	df	Sig. (2-tailed)
More Friendly*	Equal variances assumed	-3.140	57	.003
	Equal variances not assumed	-6.448	51.295	.000
More Outgoing*	Equal variances assumed	-3.815	57	.000
	Equal variances not assumed	-7.220	56.764	.000
More Intelligent*	Equal variances assumed	-3.099	56	.003
	Equal variances not assumed	-5.561	52.973	.000
More Confident*	Equal variances assumed	-3.566	57	.001
	Equal variances not assumed	-6.751	56.772	.000
More Distracted*	Equal variances assumed	-3.790	57	.000
	Equal variances not assumed	-7.006	55.458	.000
More Unfriendly	Equal variances assumed	-2.603	56	.012
	Equal variances not assumed	-5.305	49.802	.000
More Shy*	Equal variances assumed	-3.837	55	.000
	Equal variances not assumed	-7.182	54.999	.000
More Unintelligent	Equal variances assumed	-2.365	57	.021
	Equal variances not assumed	-4.491	56.868	.000
More Insecure*	Equal variances assumed	-3.459	57	.001
	Equal variances not assumed	-6.580	56.905	.000
Less Distracted*	Equal variances assumed	-3.595	57	.001
	Equal variances not assumed	-6.523	53.770	.000

*P-value < or equal to 0.005 per Bonferroni-correction

Table 9. Frequency Distribution of Participant Responses for Self-Disclosure (B vs. C)

9.1 More Friendly*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	10	90.9	21	43.8
1	1	9.1	-	-
2	0	0	-	-
3	-	-	10	20.8
4	-	-	3	6.3
5	-	-	1	2.1
6	-	-	9	18.8
7	-	-	1	2.1
8	-	-	3	6.3
Total	11	100.0	48	100.0

9.2 More Outgoing*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	8	72.7	14	29.2
1	2	18.2	-	-
2	1	9.1	-	-
3	-	-	10	20.8
4	-	-	4	8.3
5	-	-	5	10.4
6	-	-	6	12.5
7	-	-	4	8.3
8	-	-	5	10.4
Total	11	100.0	48	100.0

9.3 More Intelligent*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	7	63.6	17	35.4
1	2	18.2	-	-
2	2	18.2	-	-
3	-	-	8	16.7
4	-	-	7	14.6
5	-	-	1	2.1
6	-	-	8	16.7
7	-	-	3	6.3
8	-	-	3	6.3
Total	11	100.0	47*	97.9*

*1 out of 48 total participants failed to respond.

9.4 More Confident*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	5	45.5	13	27.1
1	5	45.5	-	-
2	1	9.1	-	-
3	-	-	11	22.9
4	-	-	7	14.6
5	-	-	2	4.2
6	-	-	4	8.3
7	-	-	5	10.4
8	-	-	6	12.5
Total	11	100.0	48	100.0

9.5 More Distracted*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	3	27.3	9	18.8
1	6	54.5	-	-
2	2	18.2	-	-
3	-	-	17	35.4
4	-	-	4	8.3
5	-	-	2	4.2
6	-	-	7	14.6
7	-	-	2	4.2
8	-	-	7	14.6
Total	11	100.0	48	100.0

9.6 More Unfriendly

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	10	90.9	25	52.1
1	1	9.1	-	-
2	-	-	-	-
3	-	-	8	16.7
4	-	-	2	4.2
5	-	-	1	2.1
6	-	-	6	12.5
7	-	-	-	-
8	-	-	5	10.4
Total	11	100.0	47*	97.9*

*1 out of 47 total participants failed to respond.

9.7 More Shy*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	3	27.3	10	20.8
1	7	63.6	-	-
2	1	9.1	-	-
3	-	-	12	25.0
4	-	-	5	10.4
5	-	-	5	10.4
6	-	-	5	10.4
7	-	-	5	10.4
8	-	-	4	8.3
Total	11	100.0	46*	95.8*

*2 out of 48 participants failed to respond.

9.8 More Unintelligent

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	8	72.7	25	52.1
1	2	18.2	-	-
2	1	9.1	-	-
3	-	-	7	14.6
4	-	-	4	8.3
5	-	-	1	2.1
6	-	-	6	12.5
7	-	-	1	2.1
8	-	-	4	8.3
Total	11	100.0	48	100.0

9.9 More Insecure*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	6	54.5	15	31.3
1	4	36.4	-	-
2	1	9.1	-	-
3	-	-	7	14.6
4	-	-	8	16.7
5	-	-	3	6.3
6	-	-	5	10.4
7	-	-	2	4.2
8	-	-	8	16.7
Total	11	100.0	48	100.0

9.10 Less Distracted*

	Self-Disclosure Group B		Self-Disclosure Group C	
Response	Frequency	Percent	Frequency	Percent
0	4	36.4	11	22.9
1	5	45.5	-	-
2	2	18.2	-	-
3	-	-	15	31.3
4	-	-	5	10.4
5	-	-	3	6.3
6	-	-	7	14.6
7	-	-	2	4.2
8	-	-	5	10.4
Total	11	100.0	48	100.0

FOLLOW-UP ANALYSES: GENDER

To better understand whether or not gender uniquely impacted the responses, we again completed a series of Bonferroni-corrected independent sample t-tests. Results revealed that when the gender viewing possibilities were compared across the three distinct groups (A, B, C), there was no significant difference between gender viewing

possibility of A versus B, A versus C, and/or B versus C (where A represents viewed female videos only, B represents viewed male videos only, and C represents viewed male and female videos). This suggests that the difference across responses are only present when all three gender groups are collapsed, which further indicates that gender did not have a distinct impact on the responses to the questions, at least not specific to the three categories used in the present study. An additional contributor to the lack of differences found when comparing the three categories of gender is that there was an unequal distribution of participants. With an equal as well as increased number across the gender groups, the results may change. Thus, present results should be interpreted with caution.

Table 10. Independent Samples t-Test Gender (B vs. C)

		t	df	Sig. (2-tailed)
More Friendly	Equal variances assumed	-.617	59	.540
	Equal variances not assumed	-.813	31.893	.422
More Outgoing	Equal variances assumed	-1.295	59	.200
	Equal variances not assumed	-1.768	34.840	.086
More Intelligent	Equal variances assumed	-.535	58	.594
	Equal variances not assumed	-.705	32.344	.486
More Confident	Equal variances assumed	-.592	59	.556
	Equal variances not assumed	-.816	35.664	.420
More Distracted	Equal variances assumed	-.083	59	.935
	Equal variances not assumed	-.157	49.838	.876
More Unfriendly	Equal variances assumed	-1.083	57	.284
	Equal variances not assumed	-1.505	38.045	.141
More Shy	Equal variances assumed	-.395	57	.694
	Equal variances not assumed	-.580	36.703	.565
More Unintelligent	Equal variances assumed	-.848	59	.400
	Equal variances not assumed	-1.149	34.123	.259

Table 10 (continued)

More Insecure	Equal variances assumed	-.924	59	.359
	Equal variances not assumed	-1.246	33.719	.221
Less Distracted	Equal variances assumed	.084	59	.933
	Equal variances not assumed	.139	56.661	.890

*P-value < or equal to 0.005 per Bonferroni-correction

Table 11. Mean Response Gender (B vs. C)

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
More Friendly	1.00	13	1.5385	1.76141	.48853
	2.00	48	2.0625	2.91297	.42045
More Outgoing	1.00	13	2.0000	1.68325	.46685
	2.00	48	3.1250	2.99379	.43212
More Intelligent	1.00	13	2.0769	1.75412	.48650
	2.00	47	2.5319	2.91063	.42456
more confident	1.00	13	2.3846	1.70970	.47419
	2.00	48	2.9167	3.09999	.44744
more distracted	1.00	13	3.0769	.27735	.07692
	2.00	48	3.1458	2.98927	.43146
more unfriendly	1.00	13	1.0000	1.58114	.43853
	2.00	46	1.9348	2.98442	.44003
more shy	1.00	12	2.8333	1.40346	.40514
	2.00	47	3.1702	2.85382	.41627
more unintelligent	1.00	13	1.2308	1.64083	.45508
	2.00	48	1.9375	2.86881	.41408
more insecure	1.00	13	2.1538	1.81871	.50442
	2.00	48	3.0000	3.14879	.45449
less distracted	1.00	13	2.9231	.95407	.26461
	2.00	48	2.8542	2.90260	.41895

Table 12. Independent Samples t-Test Gender (A vs. B)

		t	df	Sig. (2-tailed)
More Friendly	Equal variances assumed	.940	21	.358
	Equal variances not assumed	.956	20.555	.350
More Outgoing	Equal variances assumed	.000	21	1.000
	Equal variances not assumed	.000	19.024	1.000
More Intelligent	Equal variances assumed	.570	21	.575
	Equal variances not assumed	.569	19.367	.576
More Confident	Equal variances assumed	.977	21	.340
	Equal variances not assumed	1.028	20.731	.316
More Distracted	Equal variances assumed	-.896	21	.381
	Equal variances not assumed	-.787	9.478	.450
More Unfriendly	Equal variances assumed	1.323	21	.200
	Equal variances not assumed	1.314	18.982	.204
More Shy	Equal variances assumed	-1.006	20	.327
	Equal variances not assumed	-.996	18.457	.332
More Unintelligent	Equal variances assumed	1.191	21	.247
	Equal variances not assumed	1.172	18.173	.256
More Insecure	Equal variances assumed	.457	21	.653
	Equal variances not assumed	.458	19.723	.652
Less Distracted	Equal variances assumed	-.436	21	.667
	Equal variances not assumed	-.412	14.462	.686

*P-value < or equal to 0.005 per Bonferroni-correction

Table 13. Mean Response Gender (A vs. B)

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
More Friendly	.00	10	2.2000	1.54919	.48990
	1.00	13	1.5385	1.76141	.48853
More Outgoing	.00	10	2.0000	1.76383	.55777
	1.00	13	2.0000	1.68325	.46685
More Intelligent	.00	10	2.5000	1.77951	.56273

Table 13 (continued)

	1.00	13	2.0769	1.75412	.48650
More Confident	.00	10	3.0000	1.15470	.36515
	1.00	13	2.3846	1.70970	.47419
More Distracted	.00	10	2.7000	1.49443	.47258
	1.00	13	3.0769	.27735	.07692
More Unfriendly	.00	10	1.9000	1.66333	.52599
	1.00	13	1.0000	1.58114	.43853
More Shy	.00	10	2.2000	1.54919	.48990
	1.00	12	2.8333	1.40346	.40514
More Unintelligent	.00	10	2.1000	1.85293	.58595
	1.00	13	1.2308	1.64083	.45508
More Insecure	.00	10	2.5000	1.77951	.56273
	1.00	13	2.1538	1.81871	.50442
Less Distracted	.00	10	2.7000	1.49443	.47258
	1.00	13	2.9231	.95407	.26461

Table 14. Independent Samples t-Test (A vs. C)

		t	df	Sig. (2-tailed)
More Friendly	Equal variances assumed	.144	56	.886
	Equal variances not assumed	.213	24.587	.833
More Outgoing	Equal variances assumed	-1.143	56	.258
	Equal variances not assumed	-1.594	21.558	.125
More Intelligent	Equal variances assumed	-.033	55	.974
	Equal variances not assumed	-.045	20.841	.964
More Confident	Equal variances assumed	.083	56	.934
	Equal variances not assumed	.144	39.337	.886
More Distracted	Equal variances assumed	-.458	56	.649
	Equal variances not assumed	-.697	26.704	.492
More Unfriendly	Equal variances assumed	-.036	54	.972
	Equal variances not assumed	-.051	23.685	.960
More Shy	Equal variances assumed	-1.038	55	.304
	Equal variances not assumed	-1.509	24.218	.144

Table 14 (continued)

More Unintelligent	Equal variances assumed	.171	56	.865
	Equal variances not assumed	.226	19.311	.823
More Insecure	Equal variances assumed	-.484	56	.630
	Equal variances not assumed	-.691	22.720	.496
Less Distracted	Equal variances assumed	-.163	56	.871
	Equal variances not assumed	-.244	25.670	.809

*P-value < or equal to 0.005 per Bonferroni-correction

Table 15. Mean Response Gender (A vs. C)

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
More Friendly	.00	10	2.2000	1.54919	.48990
	2.00	48	2.0625	2.91297	.42045
More Outgoing	.00	10	2.0000	1.76383	.55777
	2.00	48	3.1250	2.99379	.43212
More Intelligent	.00	10	2.5000	1.77951	.56273
	2.00	47	2.5319	2.91063	.42456
more confident	.00	10	3.0000	1.15470	.36515
	2.00	48	2.9167	3.09999	.44744
more distracted	.00	10	2.7000	1.49443	.47258
	2.00	48	3.1458	2.98927	.43146
more unfriendly	.00	10	1.9000	1.66333	.52599
	2.00	46	1.9348	2.98442	.44003
more shy	.00	10	2.2000	1.54919	.48990
	2.00	47	3.1702	2.85382	.41627
more unintelligent	.00	10	2.1000	1.85293	.58595
	2.00	48	1.9375	2.86881	.41408
more insecure	.00	10	2.5000	1.77951	.56273
	2.00	48	3.0000	3.14879	.45449
less distracted	.00	10	2.7000	1.49443	.47258
	2.00	48	2.8542	2.90260	.41895

Discussion

The primary purpose of the present study was to explore how children perceive other children who stutter when those children self-disclose as compared to when they do not self-disclose. A secondary purpose was to investigate whether the child listener perception of self-disclosure was mediated by the gender of the person who either did or did not self-disclose. Findings will be discussed specific to the three different viewing pairings related to self-disclosure with consideration given to the gender of the persons within each pairing.

Recall that when the video pairings differed by gender, the participants rated the male who self-disclosed as being more outgoing than the female. This finding suggests that for this particular quality, the act of self-disclosure may be viewed as a more positive indicator for males than females. Additional support for this assumption is found in the fact that when there was no self-disclosure within the video pairings, the ratings did not differ significantly depending on whether the participants viewed a male or female. Therefore, being a male who self-discloses uniquely impacts the listener's perception of how outgoing the speaker is. It is also important to note that of the 10 questions, this particular question related to being outgoing was the only question that was significant. Thus, it can be inferred that when gender is the only mediating factor, the listener perception is significantly less impacted as when compared to video pairings in which the presence or absence of self-disclosure is the critical viewing difference.

To that end, when considering participants who viewed the self-disclosure video pairings only, there were significant differences across three of the ten questions. The

seven questions for which there was no difference were ‘more friendly’, ‘more outgoing’, ‘more intelligent’, ‘more confident’, ‘more unfriendly’, ‘more unintelligent’, and ‘more insecure’. These findings suggest that listener perception of these qualities does not appear to be distinctly influenced by self-disclosure. However, significant findings were found for the following questions: ‘more distracted’, ‘more shy’, and ‘less distracted’. These findings will be reviewed and discussed specific to each question.

The majority rated the female more favorably for the condition of ‘more distracted’, signifying that they found the female to demonstrate less distractibility in comparison to the male speaker. The remaining lesser half rated the male more favorably for this condition. This finding seems to suggest that the act of self-disclosure may be perceived more positively for females, at least with respect to the perception of being more distracted. This assumption is further supported by the fact that when there was no self-disclosure within the video pairings, the majority of participants favored the male speaker. This suggests that while males may be attributed with less distractibility when evaluating speech devoid of self-disclosure, when the self-disclosure statement is presented, females are rated more favorably than males. Conversely, when the video pairings differed with one video including self-disclosure and the other video not including self-disclosure, the majority favored the video that included self-disclosure. This suggests that the majority of participants rated the video in which self-disclosure was present more favorably with regards to level of distraction. That is, they perceived the speaker in the self-disclosure video as less distracted in comparison to the video in which the self-disclosure statement was not present.

For the question ‘more shy’, participants who viewed the videos wherein both persons self-disclosed favored the male and female speaker with equal frequency. By comparison, when the person viewed both a self-disclosure and a non-self-disclosure video pairing, the majority favorably rated the participant who self-disclosed irrespective of gender. Thus, self-disclosure regardless of gender appears to significantly influence the listener’s perception as to whether or not the speaker is more shy.

For the question ‘less distracted’, participants who viewed the self-disclosure videos only favored the female speaker most often. This finding further suggests that the perception of being more or less distracted appears to be uniquely tied to gender with the female being perceived more positively with regards to distractibility. For those who viewed the videos that differed on the self-disclosure condition, as with the previous questions, the large majority again favored self-disclosure.

For the condition wherein the participants viewed video pairings of a male and female wherein both persons did not self-disclose, there were significant differences across all but two questions: ‘more unfriendly’ and ‘more unintelligent’. Thus, it appears that ratings of being more unfriendly and more unintelligent are not uniquely impacted by gender of the speaker, at least for when the speaker does not self-disclose. However, ratings of ‘more friendly’, ‘more outgoing’, ‘more intelligent’, ‘more confident’, ‘more distracted’, ‘more shy’, ‘more insecure’, and ‘less distracted’ do uniquely impact listener perception either in a neutral manner, a positive manner, or a negative manner.

For the question ‘more friendly’, the majority of participants who viewed the no self-disclosure videos only responded neutrally, suggesting that the perception of being

friendly is not mediated by gender. For those who viewed the videos that differed on the self-disclosure condition, there appeared to be a split with nearly half rating the person who self-disclosed as being more friendly (41.7%) and a similar percentage rating this as being neutral (43.8%). From this it can be inferred that rating someone as friendly is not negatively impacted by choosing not to self-disclose, but that the rating might be more positive if the person does choose to self-disclose.

For the question 'more outgoing', the large majority of the participants who viewed two speakers who did not self-disclose rated this as neutral. This suggests that gender is not a distinct factor for rating of outgoing when there is no act of self-disclosure present. That being said, upon reflection of the previously discussed findings related to the ratings for persons who self-disclose, this particular finding further strengthens the notion that being a male who self-discloses will have a distinct impact. However, as with the previous questions, when participants viewed self-disclosure versus non-self-disclosure, the majority rated the person who self-disclosed as being more outgoing. This finding provides additional support for the positive impact of self-disclosure on listener perception regardless of gender.

Similar to 'more outgoing', for the question 'more intelligent', the large majority of participants neutrally rated the male versus female video pairings when both persons did not self-disclose. Thus, gender does not appear to distinctly impact listener ratings when there is no presence of self-disclosure. For those who viewed the videos that differed in terms of whether or not the person did or did not self-disclose, the ratings were split between favoring self-disclosure and rating both as neutral. These findings

suggest that the listener may rate the speaker more positively on intelligence if he or she self-discloses, but there does not appear to be majority pull as the presence or absence of self-disclosure is, at least within the present data set, as equally likely to not impact the listener's perception of intelligence in either direction.

For the question 'more confident', the participants were roughly split, with nearly half rating the male versus female speakers who did not self-disclose neutrally, and nearly half favoring the male speaker. This suggests that confidence may be more likely to be attributed to a male than to a female when analyzing speeches devoid of self-disclosure. With respect to the video pairings that differed only by self-disclosure, there was a comparable percentage who favored self-disclosure, who favored non-self-disclosure, and who were neutral. This suggests that the rating of more confident does not appear to result in a distinct meaningful pattern lending further support to the aforementioned notion that gender may uniquely impact ratings of more confident.

For the question 'more distracted', the majority of participants who viewed the no self-disclosure videos only rated the male speaker more favorably, indicating that a male speaker may be more likely to be perceived as less distracted in comparison to the female speaker when the speaker does not self-disclose. Recall that when the participants viewed the two videos in which the self-disclosure statement was present, the majority of participants favored the female speaker for the condition of 'more distracted'. That is, they perceived the female speaker as less distracted when each of the speakers self-disclosed. This suggests that for this particular quality, the act of self-disclosure may be viewed as a more positive indicator for females than males. For those who viewed the

videos that differed on the self-disclosure condition, the majority of participants rated the person who self-disclosed more favorably (i.e., perceived them as less distracted). This finding supports the notion that self-disclosure positively influences listener perception of the speaker with regards to distractibility.

Similar to 'more distracted', for the question 'more shy', the majority of participants favored the male speaker when both persons did not self-disclose. By comparison, when the person viewed both a self-disclosure and a non-self-disclosure video pairing, the majority favorably rated the participant who self-disclosed irrespective of gender. Thus, self-disclosure regardless of gender appears to significantly influence the listener's perception as to whether or not the speaker is more shy.

For the question 'more insecure', the majority of participants neutrally rated the male versus female video pairings when both persons did not self-disclose. Thus, gender does not appear to distinctly impact listener ratings when there is no presence of self-disclosure. With respect to the videos that differed in terms of whether or not the person did or did not self-disclose, there was a comparable percentage who favored self-disclosure, who favored non-self-disclosure, and who were neutral. This suggests that the rating of more insecure does not appear to result in a distinct meaningful pattern, suggesting that self-disclosure does not uniquely impact ratings of more insecure.

For the question 'less distracted', the majority of participants who viewed the non-self-disclosure videos only rated the male speaker more favorably. This corroborates the findings for the question 'more distracted', in which the majority of participants who viewed only the videos in which the speaker did not self-disclose also rated the male

speaker more favorably, demonstrating consistency in the listeners' perception of male speakers as less distracted when the self-disclosure statement is not present. For those who viewed the videos that differed on the self-disclosure condition, the large majority favored self-disclosure. This finding suggests that, with regards to distractibility, listeners favor the speaker who self-discloses as compared to the speaker who does not self-disclose.

COMPARISON TO PAST RESEARCH WITH ADULTS

In general, the findings of the present study suggest that children perceive other children who stutter more positively in terms of personality and intelligence when the child self-discloses the fact the he or she is a stutterer. Present findings are consistent with the findings of past research conducted with adults, which suggest that listeners prefer to interact with adult stutterers who acknowledge their stuttering.

For example, Collins and Blood (1990) concluded that when the stutterer acknowledges his stuttering during the initial interaction, the nonstutterer is more comfortable and responds to the stutterer more favorably. Listener perceptions were evaluated after the viewing of videotapes in which the speakers did and did not acknowledge their stutter. When the speaker acknowledged his stuttering, the listeners attributed more favorable ratings on intelligence, personality, and appearance. The investigators evaluated listener perception using bipolar adjective scales, which are comparable to the descriptions used in the present study. In specific, the bipolar opposites of unsociable-sociable, hostile-friendly, unintelligent-intelligent, and weak character-

strong character used by Collins and Blood (1990) are similar to the adjective pairs of shy-outgoing, unfriendly-friendly, unintelligent-intelligent, and insecure-confident that were used in the present study, respectively. Significant differences were found when the listeners' perceptual data were collapsed across all adjectives. That is, listeners rated the speaker more positively when he acknowledged his stuttering for all adjectives as compared to when the speaker did not acknowledge his stuttering.

Furthermore, the findings of the present study demonstrate consistencies with the findings of Healey et al. (2007), who conducted a follow-up study to Collins and Blood (1990) that also investigated the impact of self-disclosure on listeners' perceptions of an adult who stutters. After viewing one of three possible videos featuring an adult who stutters (one in which the speaker disclosed at the beginning of the monologue, another in which the speaker disclosed at the end of the monologue, and a third in which no disclosure of stuttering occurred), listeners rated a set of six Likert statements related to various character traits. The only statement that was significantly different across the three conditions was that the speaker was perceived to be significantly more friendly when disclosing stuttering at the end of the monologue than when not disclosing stuttering. Although in the present study the self-disclosure statement occurred prior to the monologue, for the question of 'more friendly', the listener appeared to perceive the speaker more positively when self-disclosure occurred as compared to when it did not. These findings reflect the favorable ratings attributed to the speaker who provided a self-disclosure statement in the Healey et al. (2007) study with regards to friendliness of the speaker.

Generally, the Likert scale data from Healey et al. (2007) demonstrated that listeners did not perceive any differences in the personality traits between the speaker who did and did not disclose his stuttering. However, the results did indicate that the speaker who disclosed his stuttering at the beginning of the monologue received significantly more positive listener comments than when he disclosed stuttering at the end of the monologue. This further supports the overall findings of the present study that suggest that self-disclosure positively influences listener perceptions of the speaker when he or she presents a self-disclosure statement prior to initiating his or her speech.

In addition to the aforementioned studies, Lee and Manning (2010) also evaluated the impact of self-disclosure on adult listener perceptions, measured by ratings for 21 bipolar adjective pairs related to personality, intelligence, and appearance. Similar to the present study, significant differences were found when participants viewed one video that contained acknowledgment of the stuttering and one that did not, with moderately more favorable responses by listeners when disclosure of the stuttering occurred.

In general, the present findings are fairly consistent with the available evidence related to the influence of self-disclosure on listeners' perceptions of adults who stutter in that they demonstrate more favorable ratings for the conditions in which self-disclosure occurs, particularly when the participant is able to contrast a video that includes a self-disclosure statement to one that does not.

CLINICAL IMPLICATIONS

In regards to the clinical utility of self-disclosure, the data from the present study demonstrate that the act of self-disclosure may serve to enhance listener perceptions of children who stutter with respect to a variety of traits related to personality and intelligence. These include the child being rated more favorably in terms of distractibility (i.e., perceived as less distracted), shyness (i.e., perceived as less shy), friendliness, sociability (i.e., perceived as more outgoing), and intelligence as a result of the disclosure of his or her stutter.

For these reasons, clinicians might encourage their clients to use self-disclosure as a tool to navigate communicative interactions to prevent or overcome social hindrances. As suggested by Collins and Blood (1990), it is plausible that by making an overt statement that acknowledges the stutter, the speaker is able to reduce the level of ambiguity regarding the occurrence of stuttering during a social interaction, thereby improving the likelihood of effecting a favorable response. According to the findings of the present study, children may benefit from the act of self-disclosure in this way.

It is also important to consider that gender may also play a role in how a child who stutters is perceived by their peers. For example, with respect to whether a child is perceived as more or less outgoing, self-disclosure may be viewed as a more positive indicator for males than females due to the fact that the majority of listeners rated the male who self-disclosed as more outgoing than the female who self-disclosed. In contrast, the majority of participants rated the female who self-disclosed more favorably than the male who self-disclosed in terms of distractibility (i.e., perceived her as less distracted),

suggesting that self-disclosure may be perceived more positively for females with respect to distractibility.

CAVEATS AND FUTURE DIRECTIONS

A limitation of the current study relates to the limited number of participants used. Future research efforts should include a larger number of participants to allow for a more reliable analysis of the impact of self-disclosure and gender bias in regards to listener perceptions of children who stutter. An additional limitation is that there was an unequal distribution of participants across the twelve viewing groups. That is, some video pairings were viewed by a larger number of participants than other video pairings. With an equal as well as increased number across the viewing groups, the present results may change. Thus, future research with more comparable sample sizes would be beneficial in evaluating the effects of self-disclosure on listener perceptions.

An additional consideration for future research efforts would be to evaluate the participants' experience with stuttering, as well as other relevant participant characteristics that could potentially influence their perception of the child who stutters (e.g., age or communication style). For example, do the participants who favored self-disclosure demonstrate certain characteristics not demonstrated by those who did not favor self-disclosure (e.g., were they older and/or more exposed to stuttering?)? The consideration of participant age is particularly relevant in light of the evidence that suggests children's perceptions of their peers who stutter may become increasingly negative with age (Hartford & Leahy, 2007). While information related to knowledge of

and experience with stuttering was collected, it was not analyzed in the current study and may be reviewed and analyzed at a later date to determine the potential impact of prior exposure to stuttering on listener perception of self-disclosure. Additionally, in order to gain more insight into listener perception, future research should include open-ended follow-up survey questions concerning the viewer's perception of the speaker and his or her communication. These follow-up questions would need to be worded in such a way that would prevent redundancy with the survey. That is, the open-ended questions should not lead the participant to respond with the vocabulary used in the closed-ended survey questions (e.g., friendlier, more confident, more shy, etc.) so as to provide novel information regarding the listener's perception of the speaker.

Conclusion

With regards to fluency disorders, self-disclosure is the purposeful acknowledgment of the fact that one stutters. Self-disclosure has often been used as a tool in stuttering treatment programs to facilitate desensitization to the stutter as well as improve listener reactions to the person who stutters. Past research has demonstrated that self-disclosure can favorably influence listener perceptions of adults who stutter. The purpose of the present study was to investigate the impact of self-disclosure on listener perceptions of children who stutter. In conclusion, present findings support the notion that self-disclosure may positively impact the child listener's perception of other children who stutter with regards to various traits related to personality and intelligence. Future research efforts should include increasing the total number of participants included in the study, obtaining equal sample sizes across participant viewing groups, and analysis of open-ended viewer comments and participant characteristics regarding prior knowledge of and exposure to stuttering in order to gain further insight into children's perceptions of other children who stutter.

Appendix A. Stimulus Passage

Hi, my nnnname is ____, and I'm going to recite a passage about r-r-r-r-rainbows. (I sometimes stutter, so you might hear me repeat words or sounds, but if you have any questions or want me to say anything again, just let me know).

Wwwwhen the sunlight sssstrikes raindrops in the air, (block)they act like a p-p-p-p-prism and form a rrrrrainbow. Thhhhhe rainbow is a (block)division of w-w-w-w-white light into m-m-m-many beautiful colors. Thhhese take the shhhhape of a long round (block)arch with its path high above and its t-t-t-two ends apparently beyond the h(block)orizon. Thhhhere is, according to lllllllegend, a boiling pot of gold at w-w-w-wone end. P(block)-people look, but no w-w-w-one ever finds it. Wh-wh-wh-wh-when a man looks for ssssssomething beyond his reach, his ffffffriends say he is looking for (block)a pot of gold at the end of the r-r-r-rainbow.

Thhhhroughout centuries men have e(block)xplained the rainbow in vvvvarious ways. Sssssome have accepted it as a m-m-m-miracle without physical (block)explanation. T-t-t-to the Hebrews it was a token that there wwwwould be no more y-y-y-universal floods. Thhhhe Greeks used to (block)imagine that it was a ssssign from the gods to foretell wwwwar or heavy r-r-r-rain.

Number of words (not including disclosure/including disclosure): 166/195
Number of ISPs: 9/166 (5.4%); 9/195 (4.6%)
Number of ASPs: 18/166 (10.8%); 18/195 (9.2%)
Number of SSR's: 13/166 (7.8%); 13/195 (6.6%)
Total STG's/total words: 40/166 (24.1%); 40/195 (20.5%)

Appendix B. Pre-Screener Word Meaning Exercise

Choose the best definition for each word.

1. Friendly
A. Liking to talk and interested in others; social
B. Welcoming and pleasant toward others; kind and helpful
C. Not comfortable with other people; easily frightened; timid

2. Outgoing
A. Welcoming and pleasant toward others; kind and helpful
B. Liking to talk and interested in others; social
C. Having your attention drawn to something else; having a loss of focus

3. Intelligent
A. Having or showing a mind free from doubt; comfortable with yourself; certain; sure
B. Not comfortable with other people; easily frightened; timid
C. Able to learn, think, and understand quickly and easily; smart; bright

4. Confident
A. Having or showing a mind free from doubt; comfortable with yourself; certain; sure
B. Able to learn, think, and understand quickly and easily; smart; bright
C. Not comfortable with other people; easily frightened; timid

5. Distracted
A. Liking to talk and interested in others; social
B. Having your attention drawn to something else; having a loss of focus
C. Welcoming and pleasant toward others; kind and helpful

6. Unfriendly
A. Not comfortable with other people; easily frightened; timid
B. Welcoming and pleasant toward others; kind and helpful
C. Not friendly or kind; hostile

7. Shy
A. Liking to talk and interested in others; social
B. Not comfortable with other people; easily frightened; timid

C. Having or showing doubt; not having self-confidence; not being comfortable with yourself

8. Unintelligent
A. Having or showing a mind free from doubt; comfortable with yourself; certain; sure
B. Able to learn, think, and understand quickly and easily; smart; bright
C. Not able to learn, think, and understand quickly and easily; not smart

9. Insecure
A. Having or showing doubt; not having self-confidence; not being comfortable with yourself
B. Not comfortable with other people; easily frightened; timid
C. Having or showing a mind free from doubt; comfortable with yourself; certain; sure

Definitions adapted from:
http://www.bigiqkids.com/spellingwords/onlinedictionary_p/perception.shtml

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